

WHAT IS CLAIMED IS:

- 1 1. A method of producing hollow alumina particles comprising
2 the steps of:
3 generating micro-liquid droplets in an atomized state from
4 an aqueous solution containing one of aluminum nitrate and
5 aluminum acetate and one of a surfactant and an organic acid by
6 irradiating supersonic waves;
7 selecting the generated micro-liquid droplets having a
8 predetermined grain sized or less by air stream
9 introducing the generated micro-liquid droplets into the
10 furnace; and
11 burning the generated micro-liquid in air.
- 1 2. A method of producing hollow alumina particles according to
2 claim 1, wherein the concentration of aluminum nitrate or
3 aluminum acetate is from 0.1 to 1.0 M.
- 1 3. A method of producing hollow alumina particles according to
2 any one of claim 1 to 2, wherein one of 0.0005 to 0.05 mol of the
3 surfactant and 0.03 to 0.5 mol of the organic acid is added to
4 one mol of one of aluminum nitrate and aluminum acetate.
- 1 4. A method of producing hollow alumina particles according to
2 any one of claims 1 to 3, wherein the organic acid corresponds to
3 one of citric acid, amino acid and maleic acid.

1 5. A method of producing hollow alumina particles according to
2 any one of claims 1 to 4, wherein the surfactant corresponds to
3 an olefinic polymer having a weight average molecular weight of
4 from 2,500 to 6,000.

1 6. A method of producing hollow alumina particles according to
2 any one of claims 1 to 5, wherein the resultant hollow alumina
3 particles are further re-burned.